

WHAT IS CLAIMED IS:

1. A variable valve lift mechanism for an engine comprising:

a rocker arm for transmitting a cam movement to a stem end of a valve;

5 a rotating axle movement means for moving a rotating axle of said rocker arm on a moving plane which is a plane perpendicular to said rotating axle of said rocker arm; and

a restricting means for restricting said rocker arm to prohibit the rocker arm from moving along a longitudinal direction of said rocker arm.

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2. The mechanism as defined in claim 1, wherein said rotating axle movement means comprises:

a sliding arm supported by said rocker arm so as to linearly slide on said moving plane along said longitudinal direction of said rocker arm;

15 a moveable shaft rotatably supported by said sliding arm to function as a rotating axle of said rocker arm; and

a sliding means for linearly sliding said moveable shaft along said longitudinal direction of said rocker arm.

20 3. The mechanism as defined in claim 2, wherein said sliding arm comprises:

a cam side protruder integrally formed at said rocker arm toward said cam; and

a valve side protruder integrally formed at said rocker arm toward said valve.

25 4. The mechanism as defined in claim 3, wherein said restricting means

comprises:

a roller rotatably secured at said cam side protruder to contact said cam; and

a roller guide for guiding said roller to linearly move to a direction perpendicular to said longitudinal direction of said rocker arm.

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5. The mechanism as defined in claim 4, wherein said roller guide has a plurality of guide rollers for reducing friction created by said roller when said roller is contacted by said guide rollers.

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6. The mechanism as defined in claim 2, wherein said sliding means comprises:

a hitching pin protruding along an axial direction of said moveable shaft;

a cam plate with an oval hole for said hitching pin to linearly slide therein;

a motor for rotating said cam plate so that said hitching pin inserted into the

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oval hole can linearly move along said longitudinal direction of said rocker arm; and

a controller for controlling said motor in response to an operating condition of an engine.

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7. The mechanism as defined in claim 2, wherein said movable shaft further comprises a guide shaft that is disposed within said movable shaft and mounted parallel with said sliding arm to guide any movement of said moveable shaft.